THE NECESSITY FOR WATER SUPPLY MANAGEMENT PLANNING BY LOCAL GOVERNMENTS

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Abstract. The limited potential for additional development of ground water resources has caused local governments to begin preparation of water supply management plans. The author suggests the following water management planning steps: consensus building; developing work plan; appoint a technical committee to analyze data; coordinate with state and federal agencies; develop future water demand projections; identify alternate water supply sources; develop the water supply plan; conduct public meetings; and promote local government adoption. The author stresses the importance of regional and state coordination during the planning process.

INTRODUCTION

The citizens of Georgia have long enjoyed an era in which water was readily abundant. The citizens of the southeastern coastal area have also long enjoyed an era in which ground water was abundant, of high quality and inexpensive. All one needed to do was drill a well and unbelievable amounts of ground water were available for municipalities and industries. The attitudes of water users in Georgia have been that there will always be plenty of good quality surface or ground water available. However, the opportunities to continue to expand the utilization of the state's water resources without creating problems for other communities are gone.

Local Planning

Local governments need to be involved in planning for their water supply needs. As rural areas become more developed with residential communities and commercial establishments, the ability to meet public demand for water has risen to a new level of importance. In some locations this service has been and will continue to be met by either a small publicly owned system or a private system. Regardless of the water supplier, communities should establish water supply planning committees.

Water supply management becomes much more achievable after local governments have recognized problems and studied their needs and future demands. A local comprehensive water supply management plan is an effort and process to protect the long term viability of the water resource as a source of potable water for residential, commercial and industrial use. The Georgia Environmental Protection Division (EPD) has the responsibility to manage the States' waters for their highest and best uses. The EPD can issue withdrawal permits with certain control measures to protect against general adverse effects of surface or ground water withdrawal.

Regional Review

After local governments have prepared their water supply plans, regional review of the individual plans should occur. This regional review could be conducted by existing Regional Development Centers (RDCs) or by adjacent counties which share transportation routes, employment centers, retail or education centers.

PLANNING METHODOLOGY

There are many different planning steps and methods that can be used to prepare a useful water supply management plan. The methods suggested here are very simple, but can produce beneficial results.

Consensus Building

The most important step in the water planning process is the acknowledgment and consensus that a water supply plan is needed for the community's (or region's) future growth and sustainability. Failure to recognize this step and to act upon it will result in unnecessary hardships for the citizenry and damage the overall community's future well-being.

Establish Coordinator

One agency or individual should take the lead in coordinating the efforts of all the parties involved in the planning process. The local planning commission could serve this function well. On a regional basis, the RDC could serve as the point of contact. If the RDC cannot fill this need, then it is possible that counties, sharing common interest, could meet and select someone to be the coordinating party.

Involve All Players

It is important to make sure that all users (permit holders) and interest groups are involved in the planning process. A broad based technical committee should be established and include representatives of industrial users, municipal water systems, civic and environmental groups as well as private citizens. The

coordinating agency or individual may find that two groups would work better than just one. One group could represent the more technical side and the other group could represent citizens, local government, and the local Chamber of Commerce and Economic Development Authority.

Create Work Plan and Schedule

Whatever the structure of the planning group, there must be a two step process implemented early. A "work plan" must be developed along with a schedule for necessary meetings. The "work plan" and meeting schedule will produce the target date for completion of the plan. The planning committee must meet on a regular schedule, for example, once a month.

Data Analysis

The planning committee(s) should study all available data about the water resource and discuss that data until the group members are thoroughly familiar with the information. If there are questions arising from the existing data that need additional information, formulate the questions and ask the state's Environmental Protection Division (EPD) and/or the United States Geological Survey (USGS) to assist in obtaining the additional data. Sometimes the lack of data will require cooperative funding using local, state and federal monies to be used in further data collection and analysis.

Coordinate with State and Federal Agencies

The committee should communicate regularly with the EPD, USGS and the Georgia Geologic Survey (GGS). These agencies can provide updated information on a particular topic and answer specific questions on water quality, quantity and potential impacts of increased withdrawal.

Establish Time Line

The plan should address a minimum time frame of 30 years. The document and process should take into consideration projected population growth as well as the proposed timing for any projected future residential, commercial and industrial development.

Water Demand Projections

After preparing the projected growth estimates, the committee can develop water demand projections. The water demand projections can be for local or regional plans.

Examine Alternative Water Sources

The planning committee should examine alternative water sources. Are other sources available to meet existing and projected water needs? Alternative sources can be identified from the data provided by state and federal agencies. The evaluation of this data can be conducted by the technical committee with its knowledge of local water resources. This exercise can produce a useful list of possible alternative water sources.

Develop Scenarios

The planning committee must develop and fully consider several different water supply management scenarios, including best and worst case examples. Each scenario should be fully discussed by all parties.

Write Plan with Public Review

The planning committee, after consideration of several management scenarios, can then prepare a water supply management plan. The plan must be submitted for public review. There should be as much time as possible for public review, at least two months. A minimum of five public meetings should be held at easily accessible locations. Five meetings over two months will provide opportunities for all citizens to attend regardless of other commitments. The public meetings will inform the citizens and the community about the proposed plan and how it could affect their economic future.

Process Evaluation

If the planning committee has been successful, three questions will have been answered and will be evident at the public meetings.

(1) How to conserve water;
(2) How to meet future growth demands; and
(3) The potential costs for conservation and development of additional supply.

The planning process, if it is to be successful, involves a tremendous amount of energy and time from many individuals. There are no short cuts.

After the public review process, all comments should be considered by the planning committee and, if possible, incorporated into the final documents.

Plan Adoption

The water supply management plan must be formally adopted by local government resolution, and a copy of the plan and resolution should be submitted to EPD.

REGIONAL AND STATE COORDINATION

Regional players should acknowledge and accept the following concept, "that all the water they have is all the water they have." Beyond this recognition, there are several measures, which if implemented, would benefit water planning throughout the state.

Expand State Data Base

The state must become more involved in regional water planning. The state, however, should only evaluate the regional plans prepared by the users. The state is at a disadvantage in water planning due to incomplete information on water usage, different water users and the lack of regional input. The state needs a better database for permit decisions on water usage. A primary example is the lack of required usage reporting from the agricultural users, while agricultural usage is continuing to increase throughout parts of the state. Another example is the impact of low or minimum flows on the ecological systems of the

different user and stream basins.

The state needs to aggressively study alternative water sources as well as provide incentives to encourage switching from one resource to another where possible. This information will certainly be needed over the next 10 years.

Cooperative Funding for Studies

The state legislature must commit to cooperative funding with local governments for feasibility studies and other research work needed in order to assure Georgia communities of an adequate water supply for their future. Pilot studies to evaluate engineering alternatives must be funded. These studies can be expensive and outside the realm of funding by local governments. The studies will also provide useful data about water resources to state agencies.

Solicit More Public Involvement

The state needs to solicit and accept more public involvement in water resource issues. The EPD should not draft rules and policies and promulgate them without allowing for more active public involvement. Currently, EPD issues draft rules and provides for a hearing in Atlanta to receive comments. The EPD should have several presentations around the state of the proposed rules prior to a formal hearing and submittal to the Board of Natural Resources.

The legislature needs to consider whether private property rights for ground water should become part of Georgia's water law. Public comments should be sought by the legislature before any change is considered.

Need Enforcement Staff

Funds are needed for additional EPD staff. Even though there is an enforcement section to monitor water withdrawal permits, it is not adequately staffed to perform the tasks for which it is charged.

EPD needs to employ existing techniques used by Florida and other states to assist in setting agricultural withdrawal amounts. Computer models are available to help determine the amount of water needed for a specific crop based on annual rainfall at a particular location.

The legislature needs to review the threshold value for ground water withdrawal permits. Small private systems, permitted under the state's Safe Drinking Water Act, can withdraw up to 100,000 gallons per day (gpd) and not be subjected to the same rules as municipalities or industrial users withdrawing just over 100,000 gpd.

Consider Water Management Districts

The legislature should study dividing the state into water management districts, such as the State of Florida has done. These districts should have the power to collect an ad valorem tax for use in water supply planning, conservation and water supply protection. Recharge areas could be properly protected with a properly funded program.

Water supply watersheds need proper land use planning to avoid possible future water quality problems. Water supply watershed planning should be coordinated for drainage basins both at the state and local level.

CONCLUSIONS

Local governments must be actively involved in water supply management planning to be ready to meet future supply demand and infrastructure needs for new service areas. Without local water supply planning, the economic future of Georgia's counties will be in peril. Rural communities must plan for their future water supply needs or become victims to the urban growth phenomenon. Regional water supply plans prepared from individual local water supply plans can serve to promote environmental stewardship and economic stability for all Georgia counties.

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